

WHAT IS CLAIMED IS:

1. In a wireless communication system comprising a plurality of Base Stations and at least one Switch in communication with the Base Stations, a method of synchronizing at least one neighboring Base Station to a Base Station connected with a mobile unit comprising:

from the Base Station connected with the mobile unit, periodically transmitting during a selected time interval with higher transmission power than during normal transmission; and

receiving the transmission with higher transmission power at the least one neighboring Base Station.

2. Method, according to claim 1, wherein:

the selected time interval is a synchronization hop in a series of periodic hops; and

the increased transmission power during the synchronization hop is at least twice as great as the normal transmission power.

3. Method, according to claim 1, wherein:

the selected time interval is a synchronization hop in a series of periodic hops; and

the synchronization hop is transmitted at a different frequency than the remaining periodic hops.

4. Method, according to claim 1, wherein:

the mobile unit is equipped with a short-range wireless communication transmitter/receiver.

5. Method, according to claim 1, wherein the mobile unit is a device selected

from the group consisting of:

telephone handset, standard cordless telephone handset, cellular telephone handset, personal data device, personal digital assistant (PDA), computer, laptop computer, e-mail server, a device utilizing point-to-point protocol (PPP) to the Internet via a central remote access server a headset, a personal server, a wearable computer, a wireless camera, and a mobile music player.

6. Method, according to claim 1, further comprising:

providing communication links between the Base Stations, wherein the communication links between the Base Stations are selected from the group consisting of RF links and land lines; and

transferring connection status information and rough synchronization information between the Base Stations over the communications links.

7. Method, according to claim 1, wherein:

the Base Stations and the Switch are connected via a wired or wireless local area network (LAN).

8. Method, according to claim 1, wherein:

a first plurality of Base Stations are connected to a first Switch;

a second plurality of Base Stations are connected to a second Switch;

the Switches maintain status tables for calls and connections that they are handling, and maintain copies of each other's status tables; and

when a Switch updates one of its status tables, it sends the updated status table to the other Switches.

9. Method, according to claim 1, wherein:

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the wireless communication system comprises a wireless private branch exchange (WPBX) handling calls from mobile units comprising handsets.

10. Method, according to claim 9, further comprising:

in the Switch, maintaining a table of calls being handled by the WPBX, comprising information selected from the group consisting of a unique Call Identification number for each active call being handled by the WPBX, the origin of the call, the destination of the call, Calling Number Identification (CNID), Destination Number (DN), Originating Base Station Identification, Destination Base Station Identification, Status of call, information for billing, and information for performance analysis.

11. Method, according to claim 9, further comprising:

in the Switch, for each call, maintaining a table of connections comprising information selected from the group consisting of Handset ID, Current Base Station ID, handle of high-level protocols, handle of low-level protocols, Number of candidate Base Stations for handoff, List of candidate Base Stations for handoff, and List of handoff status for each candidate Base Station.